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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,514	12/14/2001	Hoang-Yan Lin	3313-0441P-SP	3583
2292	7590	04/19/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			MAHONEY, CHRISTOPHER E	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Applicati n N .

10/014,514

Applicant(s)

LIN ET AL.

Examiner

Christopher E Mahoney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-11 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,2 and 5-11 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

The drawings were received on September 22, 2003. These drawings are approved by the examiner.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 5-6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minoura (U.S. Patent No. 5,146,365) in view of Van de Ven (U.S. Patent No. 6,151,162). Minoura teaches a rear projection screen with a field lens made of a Fresnel lens 16a, which receives light from a reflective mirror 14, 15. A diffusive plate 16b is located on the output side of the Fresnel lens and is comprised of lenticular lenses. A diffuser 17/18 may be located on the input side of the field lens. The applicant is directed to review figures 1, 2, 5, 6, and 9 as well as col. 2, lines 40-64, col. 3, lines 16-65, and col. 4, lines 44-49. The diffuser may be a rough frosted surface or a fly eye lens. Minoura does not teach reducing the Fresnel lens in order to eliminate ghost images nor does it teach that the Fresnel lens is thinner than 0.5 mm. Van de

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Ven teaches in col. 3, lines 55-61 that it was known to minimize the Fresnel lens thickness (to preferably thinner than 0.5 mm) in order to eliminate ghost images. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features as taught by Van de Ven for the purpose of producing a clearer image.

Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minoura (U.S. Patent No. 5,146,365) in view of Van de Ven (U.S. Patent No. 6,151,162). Minoura teaches the features of the claimed invention except for the specific method of manufacturing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize any method of manufacturing because the applicant does not disclose that the specific methods solve any problem or are for a particular purpose and it appears that any well known manufacturing method would work. The purpose of using methods of manufacturing such as UV curing, AB gluing, injection molding, press molding, etc. is to utilize readily available manufacturing processes/techniques. It makes manufacturing cost effective. The examiner also notes that the method of manufacture does not limit the specific structure of the claimed invention.

Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minoura (U.S. Patent No. 5,146,365) in view of Van de Ven (U.S. Patent No. 6,151,162), and further in view of Langille (U.S. Patent No. 5,837,346). Minoura in view of Van de Ven teaches the features of the claimed invention except for the specific method of manufacturing. Langille teaches in col. 3, line 60 and col. 4, line 2 that different methods of manufacturing were known. It would have been obvious to one of ordinary skill in the art at the time the invention was made

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to utilize the features as taught by Langille for the purpose of substituting one well known method of manufacture for another.

### ***Response to Arguments***

Applicant's arguments filed January 20, 2004 have been fully considered but they are not persuasive.

The applicant argues that the claimed invention provides a Fresnel lens that is thinner without changing the shape of the Fresnel structure. It is the applicant's position that the modifications of col. 3, lines 40-47 destroy the shape of the Fresnel structure and make it more difficult to produce.

The examiner would like to first point out that Van de Ven is used for the teaching in col. 3, lines 55-61 which teaches that it is desirable to create a Fresnel lens with minimal thickness, preferably thinner than 0.5 mm. Van de Ven states that the purpose of this is to eliminate ghost images. This is a general teaching/discussion as to why it is desirable to use a thin Fresnel structure. This applies to non truncated Fresnel structures as well as truncated. Furthermore, evidence that Van de Ven is discussing thin Fresnel lenses generally is found in col. 3, lines 53-54 which states that the "extra substrate which is normally used to ensure some stability can therefore be dispensed with." The stability is needed in Fresnel lenses which are *normally used* (meaning the prior art non-truncated as depicted in figure 2C for example) because they are "not rigid enough ... to ensure sufficient stability." (col. 3, lines 61-62) Van de Ven is simply used for its teaching of making a Fresnel lens thinner than 0.5 mm for eliminating ghost images. The reduction of Fresnel lenses to lens than 0.5mm to reduce ghost images was known in the art.

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Van de Ven is just one teaching of this. Evidence that it was known in the art is found in the teachings of the cited prior art not relied upon in the rejections. See for example, col. 6, lines 37-41 of Seufert for example.

Even if Van de Ven taught that the only way to make a thin Fresnel lens was by modifying it in the manner as shown in figure 2B, it would just result in a Fresnel lens which contained additional structure not claimed by the applicant. It would still include all of the limitations of the applicant's claimed invention and therefore render them unpatentable.

The fact that the angle  $\Psi$  is changed and that the points of the facets are eliminated to maximize the use of signal light does not change the fact that the resulting structure is still a Fresnel lens which is made thin (preferably thinner than 0.5mm) in order to reduce ghost images. The structure of figure 2B fits within the definition/plain meaning of a Fresnel lens.

The applicant also argues that Van de Ven's modification would be more difficult to produce. The prosecution is directed solely to the limitations found in the claims.

The applicant comments on page 9 lines 13-17 that the combination of limitations provide an easily manufactured structure. This is presumed to be in response to the comment in the Office Action which states "the method of manufacture does not limit the specific structure of the claimed invention." It is still unclear how the method of manufacture limits the structure. However the reference to Langille teaches the methods of manufacture.

With respect to claim 5 the applicant argues that there is a unique beneficial result of using a Fresnel lens having a thickness of smaller than 0.5mm. Van de Ven teaches that a Fresnel lens having a thickness of smaller than 0.5mm (col. 3, lines 59).

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher E Mahoney whose telephone number is (703) 305-3475. The examiner can normally be reached on 8:30AM-5PM, Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on (703) 308-2847. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

  
**CHRISTOPHER MAHONEY**  
**PRIMARY EXAMINER**